# ANALISIS PERFORMA JARINGAN INFRASTRUKTUR CLOUD COMPUTING UNTUK KEBUTUHAN RENDER VIDEO DI TVKU SEMARANG

**R. GARGISTA GUSTAMAS**
(Pembimbing : Sugiyanto, M.Kom)
*Teknik Informatika - S1, FIK, Universitas Dian Nuswantoro*
*www.dinus.ac.id*
*Email : 111201307996@mhs.dinus.ac.id*

## ABSTRAK

Cloud Computing menawarkan kemudahan serta kemanan lebih dibandingkan konvensional. Konektifitas jaringan berkaitan erat menentukan kualitas cloud computing itu sendiri. Penelitian ini menggunakan cloud computing sebagai infrastruktur komputer yang diharapkan dapat membantu proses rendering di PT. TVKU Semarang. Proses pengujian pada tiap jaringan fungsi utama cloud computing tersebut diuji satu per satu. Proses penghitungan menggunakan beberapa tools untuk mengukur jumlah bandwidth, latency, packet loss, jitter dan datagram. Data-data tersebut merupakan penentu peforma jaringan sejak lama. Hasil yang didapat adalah beberapa jaringan tidak berjalan seperti yang diharapkan. Node Controller memiliki bandwidth, latency dan jitter yang lebih besar dibandingkan koneksi lainnya. Node Network memiliki 2 NIC. Keduanya terbukti bermasalah karena koneksi melalui NIC1 menghasilkan bandwidth yang tak sampai 100Mbps yang seharusnya mampu mencapai 1Gbps sebagai sender maupun receiver. Bandwidht yang melalui NIC2 hanya mencapai 606Mbps sebagai sender dan 738Mbps yang seharusnya juga mencapai 1Gbps. Koneksi antara cloud computing dengan client juga belum optimal. Bandwidth diantara keduanya tidak mencapai 100Mbps. Waktu yang diperlukan untuk merender dengan storage cloud computing masih lebih lama dibandingkan secara konvensional berdasarkan komputer render milik TVKU Semarang saat ini. Waktu tersebut belum ditambah waktu pengiriman data ke cloud dari komputer Editor-PC sehingga menambah waktu lebih lama proses render PT. TVKU.

Kata Kunci : Cloud Computing, Network Performance, IAAS, Rendering

Generated by SiAdin Systems ï¿½ PSI UDINUS 2017

Repository | Thesis | Bachelor of Informatics Engineering - S1 | Faculty of Computer Science | DINUS University | 2017

# Analysis of Network Infrastructure Performance on Cloud Computing for Render Requirement in TVKU Semarang

**R. GARGISTA GUSTAMAS**
(Lecturer : Sugiyanto, M.Kom)
*Bachelor of Informatics Engineering - S1, Faculty of Computer Science, DINUS University*
*www.dinus.ac.id*
*Email : 111201307996@mhs.dinus.ac.id*

## ABSTRACT

Cloud Computing offers more convenience and more security than conventional. Network connectivity is closely related to the quality of cloud computing itself. This study uses cloud computing as a computer infrastructure that is expected to help the rendering process in PT. TVKU Semarang. Testing process on each network of cloud computing main function is tested one by one. The calculation process uses several tools to measure the amount of bandwidth, latency, packet loss, jitter and datagram. These data are the determinants of network performance for a long time. The results obtained are some networks are not running as expected. Node Controller has bandwidth, latency and jitter worse than any other connection. Node Network has 2 NICs. Both proved to be problematic because connections via NIC1 resulted in a bandwidth of less than 100Mbps which should be able to achieve 1Gbps as both sender and receiver. Bandwidht through NIC2 only reaches 606Mbps as sender and 738Mbps which should also reach 1Gbps. The connection between cloud computing and client is also not optimal. Bandwidth between them does not reach 100Mbps. The time needed to render with cloud computing storage is still longer than conventionally, based on today's TVKU Semarang computer. The time has not been added by the time of data delivery to the cloud from Editorâ€™s computer so as to increase the longer process of rendering in PT. TVKU.

Keyword : Cloud Computing, Network Performance, IAAS, Rendering

Generated by SiAdin Systems ï¿½ PSI UDINUS 2017